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RICHARD UPJOHN

December, 1947

England Discovers a New Surfacing Material

Urban Development at the Local Level

Architects Read and Write

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Frances Benjamin Johnston's Photographs

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Urban Development at the Local Level

By Eugene Weston, Jr., F.A.I.A

An address, in major part, delivered before the Construction Industries Committee, Los Angeles Chamber of Commerce, Sept. 24, 1947.

LAST FALL I presented a paper on Urban Redevelopment at the November meeting of the Southern California Chapter, A.I.A. At that time I stated that I felt that there should be further examination into possible methods whereby cities at a local level might be able to carry out redevelopment without relying on Federal grants, loans and subsidies. Some of my friends seem to feel that it is almost sacriligious to discuss any other method than those Titles on Redevelopment defined first in the W-E-T Bill and now in the T-E-W Bill. I can't go along with any such narrow approach to an extremely complex and important subject. We are all impressed and influenced by any large Federal program of loans and subsidies, but frankly, from my own experience I am impressed with some of the negative effects at a local level, where the Federal influence has been highly political, and has produced a type of control that may not, in my opinion, be for the best interests of the community from the long-term viewpoint.

I mentioned, last fall, my interest in the activities of the Indianapolis Redevelopment Commission, and a few months ago it was my good fortune to have an opportunity to review on the spot the operation of what I call the "Indianapolis Plan." Before I present a report on the Indianapolis Plan, I would like to make a few observations on the general question of urban redevelopment.

Cities as they expand, mature and age, develop varying conditions that result in the need for rebuliding. These conditions may be accentuated by migrations, wars, earthquakes, fire, natural obsolescence or by the outmoded design of existing structures and the inadequate functioning of civic facilities.

Cities are constantly being rebuilt, but generally archaic street and land-use patterns persist. It

is my opinion that the Los Angeles regional freeway pattern will contribute more than any other factor in the establishment of a basic regional planning pattern or framework, when we really get under way into urban redevelopment. This freeway system will gradually free our vehicular transportation load, but at the same time it may contribute to further decentralization and increasing blight in the older built-up areas of this City.

Decentralization is not a panacea for the ills of modern cities. On the contrary, when brought about, as it has so far been, by an effort on the part of individual families to run away from the consequences of past mistakes in community policies, instead of correcting them, decentralization merely spreads the diseases of traffic congestion, property instability and blight. It multiplies the seriousness of the difficulty fronting the community by increasing the area affected. Not only within our cities, but their environs as well, every home owner and every investor in a business or in business property stands in constant danger from the instability and unpredictable shifts in environment and property values that are characteristic of the current situation. Decentralization involves greatly increased costs for community services. The ultimate problem involves extension—over a vastly expanded area—of existing facilities such as water, sewers and streets; health, police, and fire protection; schools; light; telephone and transportation; but with approximately the same or even a diminishing population within the central area to pay the taxes. When as individuals we try to solve the problems of urban living by running away from undesirable environment, we thereby magnify the problems of the community of which we are a part. Those of us who run away from the city as a place to live, hope that others will support the cost of maintaining it as a place to work, and as a center of culture and amusement.

Personally I have decentralized our family by going due north until I reached the foothills and then climbed up to an elevation of 1500 feet. I can't go much further and now the smog has reached up and reminded us that we are still in the city.

I am sure all of us are sympathetic to better planning and more stabilized land use and pleasant neighborhood environment. I understand the estimate is made that

in 25 years this region will have a population of around 6 million, and I don't doubt that this figure will be reached; from this month's report of the Los Angeles County Regional Planning Department, we are getting close to 4 million. These new millions may be provided shelter, business, religious, educational and recreational facilities in sympathy with good planning, or they may continue to be crowded into this area in a generally haphazard manner. Emergency high-priority Federally-directed stop-gap programs, such as the emergency housing program, do not in most cases improve the qualities of our cities, and the very nature of an emergency tends to lower standards of construction and contributes to the further disorganization of our region.

As city officials are well aware, expenditures incurred to expand services essential to urban living are made in dread, if not in certainty, that this expansion will make obsolete or cause to fall into decay and misuse many of the facilities already installed near the center of this city. Taxes are levied on owners of existing properties only to extend services, which make it possible to create competing properties, or enable economic activities and taxable income to escape beyond the border of the city. It is quite generally agreed that the blighted areas being drained of their stable population and purchasing powers are constantly expanding. Attempts to remedy the situation by rehabilitation, either through site clearance and rebuilding, or though repair of existing buildings and checking the expansion of the blighted areas, have met with many obstacles.

Rehabilitation laws have been framed in an effort to overcome these obstacles. They rest on the premise that, by appropriate action of both public and private interests, blighted areas may be restored by acquiring of land, demolition of structures, replanning and rezoning, improving the land use, building of appropriate structures, provision for more open spaces, better parking and traffic arrangements, and protection from dirt and noise, thus holding or attracting to the area population and taxable income.

Urban redevelopment legislation has been enacted in many States, and these States' enabling acts generally fall in one of the following groups:

Group 1. *Redevelopment Cor-*

poration Laws to encourage large private institutions to construct housing projects.

Group 2. *Housing Redevelopment Laws* which enlarge the powers of local housing authorities, making them the local redevelopment agency.

Group 3. *Redevelopment Land Agency Laws* which establish new redevelopment agencies under control of the local government.

The California and Indiana acts fall in Group 3.

I will now review rather in detail the operations of the Indianapolis Plan, and I feel it will contribute to a better understanding of urban redevelopment.

The Mayor's Post-War Planning Committee of Indianapolis assigned the study of slum and blighted areas to a committee headed by Paul L. McCord. Following an intensive investigation and review of the situation, this Committee had prepared legislation which was recommended to the Indiana State legislature and enacted into law March 7, 1945.

This law is known as the "Redevelopment Act of 1945." It created for cities of a population of more than 300,000 (which means Indianapolis) a Department of Redevelopment, under the control of a board of five members, known as the "Indianapolis Redevelopment Commission," and, significantly, a *taxing district,* including all the territory within the corporate limits of Indianapolis, for the purpose of levying and collecting special benefit taxes for redevelopment purposes. All of the taxable property, both real and personal, within the taxing district is deemed to be benefited by the redevelopment projects carried out under the provisions of the Act, to the extent, of course, of the special taxes levied under the provisions thereof. The act, as I understand it, is mandatory and reads: "The Mayor of such City *shall appoint,*" etc.

Many States have passed, as California has, redevelopment legislation, but as far as I know, with the exception of Illinois, Indiana has the only State legislation that really faces up to the fiscal problem. The assumption seems to be in most other cases that the only solution is to pass the financial burden to Washington, and then accept the controls that must apparently come with the use of Federal funds.

Briefly stated, under the Act the

Mayor appoints a board of five members known as the "Indianapolis Redevelopment Trustees." Two of the trustees are selected by the Mayor, one is nominated by the Judge of the Circuit Court of the county, and two by the President of the City Council. The nominated trustees are then appointed by the Mayor, subject to the provisions of the Act. The trustees by majority vote appoint the five commissioners of the Department of Redevelopment. The commissioners serve for five years, are bonded, must be at least 35 years of age, be residents of the county and owners of taxable property in the City of Indianapolis, and receive no salaries.

These commissioners, under Section 11, have certain duties and powers. I brief some of these duties: to investigate, study and survey blighted areas; determine causes contributing to blight; promote and encourage *proper use* of land for the best interests of the City and its inhabitants; and—this is the most important duty—"to select the blighted areas and cause same to be replanned and disposed of so as to best promote the social and economic interests of the City and its inhabitants."

Some of the powers of the commissioners are as follows:

1. To acquire by purchase, gift, grant, condemnation or lease, any real estate, interests in real estate or personal property.
2. To hold, use, sell, lease, rent or otherwise dispose of any property, etc.
3. To sell, lease or grant any property to other departments of the City for public use, etc.
4. To contract for the clearance of real estate acquired for redevelopment, but *not* to erect new structures, etc.

Wherever upon investigation it is found by the commissioners that any area has become blighted and that the public health and welfare will be benefited by acquisition and redevelopment, then the property is defined, mapped and appraised, and the owners listed. The commissioners then adopt a "Declaratory Resolution," stating that it will be of public utility and benefit to acquire such area for redevelopment.

Upon adoption of this Declaratory Resolution, it is submitted together with supporting data to the Planning Commission of the City

of Indianapolis. The Planning Commission has the power to determine whether the redevelopment plan conforms to the master plan of development for the City and to approve or disapprove the Resolution and the plan proposed. In determining the location and extent of any blighted area proposed for redevelopment, the Redevelopment Commissioners and the Planning Commission shall give consideration to transitional and permanent provisions for adequate housing for the residents of such areas who will be displaced.

After approval by the Planning Commission, the Redevelopment Commissioners hold a public hearing on the Declaratory Resolution. I predict that when redevelopment gets under way in our large urban areas, practically all projects will affect so many owners of property that appeals will result in nearly every case. Under the Indiana Act, any person who shall have filed a written remonstrance with the Redevelopment Commissioners at the hearing and who is aggrieved by the final action and Confirmatory Resolution of the commissioners, may within ten days take an appeal to the Superior Court of the county.

If the court confirms the final action of the commissioners on the Declaratory Resolution, the commissioners then proceed to acquire the real estate described. To assist the Department of Redevelopment in operating prior to collection of taxes the City may advance up to $50,000 as loan, to be repaid by the Redevelopment Commissioners out of the first proceeds of the special taxes levied under the provisions of the Act.

Again I wish to emphasize the importance of the Special Tax Levy as defined in Section 22. Certainly, to obtain the cooperation of taxpayers of the City of Indianapolis it is and will be necessary to have their continued support and confidence in the theory of urban redevelopment. If large areas of unimproved and improved property are to be taken away from private owners, whether the property is blighted or not, and replanned and sold back to—in most cases—new owners, there must be very substantial confidence on the part of the taxpayers in the integrity and administrative good judgment of the commissioners and the Department. I sense that any redevelopment program that does not have this firm local citizen support will be riding into very rough water. One of the reasons

I doubt the justification for the Housing Authorities to act as the redevelopment agency is this question of confidence. There are many communities that would be interested in redevelopment but who do not have confidence in the local Housing Authority's ability to carry out a disinterested program.

For the purpose of raising funds to carry out the provisions of the Act, the commissioners are empowered to levy a special tax of not to exceed 10 cents on each $100 of taxable valuation, for the first two consecutive periods, and not to exceed 5 cents on each $100 thereafter. The required redevelopment budgets and tax levies are subject to review and modification in the same manner as the budgets and tax levies formulated by the executive departments of the City.

The City of Indianapolis Redevelopment Trustees were appointed April 26, 1945 within a few days after the enactment of the State Act. By the 11th of May the Commission had been appointed, and Paul L. McCord was elected president. On July 9, 1945, a resolution fixing the tax levy at 10 cents was adopted. The first money from this levy (aproximately $550,000) became available on July 1, 1946.

By October 1, 1945 the Commission had appointed an Executive Secretary, opened an office, adopted its rules and regulations, defined the first area for a redevelopment study, and contracted for title reports and appraisal services. By March, 1946 appraisals were completed; in April the Research Department of the "Flanner House" was authorized to conduct a detailed population, social and economic survey of the area, a complete engineering survey of the project area was started, and Lawrence V. Sheridan, Planning Consultant of Indianapolis, was appointed to prepare the necessary land-use studies and reports. On July 10th the preliminary redevelopment plan was submitted. The work outlined was carried out under a loan from the City of $50,000, of which $11,894.87 was expended, which amount has now been reimbursed to the City from the first proceeds of the tax levy.

The City of Indianapolis Department of Redevelopment then selected the area defined as Project "A" and passed on November 6, 1946 Declaratory Resolution One, defining and justifying their selection and (based on the average

of separate appraisals by three independent appraisers) have estimated the cost of acquiring the property in the blighted area as $874,515.

Following the adoption of Declaratory Resolution One, the City Planning Commission on November 25, last year, approved the redevelopment plan and the Resolution. A public hearing was held on January 17, this year, by the Redevelopment Commissioners to hear the written remonstrances and objections. At a reconvened hearing on February 5, the Commission over-ruled the remonstrances and objections and passed a resolution confirming the Declaratory Resolution.

In sympathy with provisions of the Act, the remonstrants appealed the action of the Commission. The case was heard in the Superior Court of Marion County before five judges with the Hon. Emsley W. Johnson, Jr., presiding. The court rendered a decision *favorable* to the Commission.

I don't propose to discuss at length the actual physical redevelopment plan that has been adopted. We all realize that there are many land planning solutions. The important thing is that the Commission has laid the groundwork for a good project. The State Act is simple, direct and has been sustained by court action. The financing operation is sound. Slums will be cleared, traffic improved, park areas provided and adjacent property values stabilized. Furthermore, the land for business and residential use will go back into private ownership under improved land-use restrictions and conditions, and the property stays on the tax rolls. The entire operation makes good sense to me! I would like to see other cities do some of their own thinking and come through with procedures that would contribute as much as the Indianapolis Plan has accomplished.

News of the Educational Field

PRATT INSTITUTE, Brooklyn, announces the following Design Critics as additions to the teaching staff: Huson Jackson and Arthur Malsin. Ronald Allwork has been made Instructor in Construction.

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING of the University of North Carolina has appointed Morley Jeffers Williams as Professor of Landscape Architecture.

YALE UNIVERSITY'S Division of the Arts announces the reorganization of the Department of Architecture. Harold D. Hauf, Professor of Architectural Engineering, will serve as chairman of the Department and with him will be associated Edward D. Stone, architect of New York City, as the Senior Critic in Architectural Design. Supplementing the usual series of Visiting Critics, will be several, each of whom will come to New Haven for a period of five weeks to supervise a major problem in Advanced Design. These critics are to be Louis I Kahn of Philadelphia, Paul Schweikher of Chicago, Carl Koch of M.I.T., and Gardner Dailey of San Francisco.

England Discovers a New Surfacing Material

In spite of the Englishman's reputation for understatement and his general disinclination to be over-enthusiastic, we find this account taken from the staid *Journal of the Royal Institute of British Architects* for Oct., 1947. It speaks for itself.

TWO YEARS' work in a group of buildings on a bombed site in North London have given the building industry a material which may prove to be as revolutionary in the field of surfacing as was the development a century ago of reinforced concrete in the field of structures. Pyrok is the name given to what, for want of a better term, may be called a form of plastering, although it is, in fact, not plastering but a quite new technique. It is a surfacing material which is waterproof and fire-resisting to an astonishing degree, which adheres strongly to any surface including wood, steel and asbestos-cement, which is entirely free from normal plaster cracking, which resists frost and can therefore be applied externally in frosty weather, which will hold screws and cut nails without plugging and does not corrode metals, which can be sawn and chiselled without spalling, which is applied by spray gun and finished with certain special tools and, finally, has its basic substances in abundant supply.

Such a catalogue of virtues sounds too good to be true, but rigorous study, experiment and searching for snags by scientists, building research specialists, architects, builders and plastering experts have so far failed to diminish its apparent perfection, though con-

clusive scientific tests and experience of use are still to come.

Pyrok has been developed by Mr. Samuel Clipson, Managing Director of C. & T. Painters, Ltd., of Mordaunt Road, N.W. 10, whose interest in the problem goes back for some years and received further stimulus as a result of his direct association with certain investigations sponsored by the Chief Scientific Adviser, Ministry of Works, to develop, if possible, some method of producing satisfactory wall surfaces using relatively unskilled labour. Subsequent to that work, Mr. Clipson continued independently to experiment with ideas of his own which included the use of vermiculite, and ultimately developed what is now known as Pyrok, of which he is the patentee. Patents have been filed and a development company formed, but it is not yet ready to begin operations.

So much for the general story of Pyrok. Early this month the Editor and Assistant Editor of the *R.I.B.A Journal* were invited to inspect the experimental work, and the following detailed description has been written from notes then made and from data supplied.

Although Pyrok has such important properties, it does not contain any substance that is not already used in the building or allied industries, for its ingredients are Portland cement, a lime plasticiser, vermiculite and water, and of these vermiculite is the chief agent in producing the results described in this article. Vermiculite is found in South Africa, Kenya, America, the U.S.S.R., and in other parts of the world, and its qualities as a light-weight material of low thermal conductivity are recognized. It is an inert, micaceous material which under the influence of heat exfoliates into a structure suggesting the folds of a minute concertina.

In the Pyrok process vermiculite is thus exfoliated by heat and is then mixed with the other ingredients mentioned above, but the amount of each is critical, and many experiments were carried out before the correct proportions were discovered. The materials are put into a specially-designed machine incorporating a mixer and a compressor for working a pump which delivers the material through a delivery hose to a gun of special design. But this means Pyrok may be blown on to practically any surface and it will adhere without any previous treatment of the backing, but there are some reservations to

this statement that will be mentioned later.

Among the surfaces to which Pyrok has been applied are steel, iron, galvanized sheeting, asbestos-cement sheeting, timber, brickwork, concrete, clay blocks, wood-wool, cork, and strawboard. It may be applied both to vertical and horizontal surfaces; it can be blown on to give any desired thickness in one operation, and does not fall off or run as most materials would do if brought up to a similar thickness while in a semi-liquid state. This quality is an important one, as it reduces the time needed to attain the thickness required, since there is no need to wait for one coat to dry before adding the next.

When blown on by the gun the surface has, of course, a pocked appearance resembling roughcast, which would in many cases be suitable for external rendering, but if a smooth finish is desired a special vibrating screeding bar quickly produces a comparatively smooth surface. The material is then left for a certain time to allow it to set sufficiently and then the final smooth surface is obtained by the use of a vibrating finishing tool. It is to be noted that this tool only compacts the surface skin, leaving the body of the material still in its cellular form and thus it retains a certain degree of elasticity, which no doubt is the secret of its ability to remain unaffected by slight movements of the surface to which it is applied; indeed, the absence of cracking is one of the important points to be noticed. Another point is that compacting the surface skin does not cause the material to spread sideways.

The extremely high fusing point of vermiculite is a characteristic that is of great importance for fire-resisting purposes. In the course of experiments a steel joist was filled between the flanges with Pyrok to a thickness of some 2½ in. It was applied straight on the base metal (for no bracketing or mesh is required) and a blow-lamp was then directed at it for 4½ hours; at the end of that time the material was undamaged and only just a perceptible warmth could be felt in the flange on the opposite side. As steel stanchions and joists can be completely encased in Pyrok, the present methods of protecting buildings from fire may well be affected by the advent of this new technique.

It has similar protective qualities when applied to timber, as was seen when a wood board was coated to a thickness of just under ⅛ in.

and then subjected to the flame from a blow-lamp for 2½ hours. While this is not a true fire test, the Pyrok surface remained in place and the wood beneath was found to be only charred. Another feature to be noted is the comparatively small area which becomes even warm, around the circle of the blow-lamp flame—a matter of a few inches.

Despite the applications now on the market for reducing the flammability of timber, the thermal qualities of wood have been overshadowed by the fear of fire, but Pyrok should change all that, for the protective coating can be so thin that it will not affect the design of the building or interfere with the proper seating and jointing of adjacent members. Despite shortage, timber is still used for roof supports and upper floors, and in such situations Pyrok will not only help in preventing the fall of the roof or floor through fire but it will also act as a thermal insulating material. Its application by means of the gun is so easy and quick that it would not be a lengthy matter for roof members and floor joists to be coated. Although the results of the blow-lamp test on the steel joist were impressive, the patentee desired to give the material the most searching test that could reasonably be desired; he therefore prepared a panel of Pyrok and exposed it to an oxy-acetylene flame; this burnt a hole in the panel by fusing the vermiculite but the damage was confined to the actual hole and the edges were unaffected. The back of the panel became warm but not hot. The absence of spalling or crumbling of the edges was particularly interesting, as it showed how localized the effect of the flame was and suggested comparisons with what would be likely to happen in the case of other materials subjected to a similar test.

Another demonstration of the fire-resisting qualities of Pyrok was given by tests on asbestos-cement sheeting; those who have seen the effect of fire on this material will require a very convincing proof that any surface application can prevent the sheeting from shattering, but for the purposes of the test a portion of an asbestos-cement sheet had been coated with one of the usual cementative preparations, and with a quite thin skin of Pyrok on another portion. A blow-lamp was then directed against the cementative preparation and after a minute or two the expected hap-

pened; there was a loud report and a piece of the sheeting with the preparation on it blew off, leaving a hole. When the flame was applied to the Pyrok-covered portion there was no change, although the back of the sheet was definitely warm to the touch. As Pyrok will adhere to surfaces set at any angle it is obvious that a coating applied to the underside of a roof of asbestos-cement sheeting and—if you will—to the external side also, will greatly reduce the effects of fire.

A question that will at once arise in the mind of an architect is—what are its qualities when applied as a rendering externally; will it be weather-resisting? Tests supply the answer; it will. A brick wall coated with the material was left exposed to the rigours of last winter; not content with that, the patentee sprayed the coating with water and let ice form on it, and it was not affected. In another test a steaming machine was allowed to discharge water vapour to the underside of a panel coated with the material, and even after an application lasting several minutes no condensation was observable. This means that the material absorbs moisture, or at least the surface skin does, but the moisture does not penetrate readily through the thickness of the material. This, perhaps, is due to the cellular structure of the body of the material, even when the surface skin has been tamped to smoothness. This property, added to its freedom from crazing, suggests its suitability as an outside rendering as it would at the same time act as an insulating skin.

If the material be required for thermal insulating purposes, it is not necessary to apply a thick coat, as is proved by the fact that a corrugated sheet roof was given an application of about ¼ in. externally and 1/16 in. internally, the 9-in. brick walls being left untreated. Readings showed that the temperature inside the building was 72 degrees F., while outside temperatures were, respectively, 82 degress in the shade and 98 degrees in the sun. Pyrok can be foamed into a very light-weight material, in which state it would prove useful for pugging between timber floor joists and would then take its place with the coating on the timber to form a fire-resisting filling as well as an insulator against noise and heat; indeed its insulating properties suggest many situations where it could be used for the conservation of heat, as it can take

the place of ordinary plastering or insulating boards on a wall or can be applied to such boards on a ceiling, and in this position its fire-resisting properties would be an added advantage.

Reference was made above to a reservation in the case of steel, and it is that the metal must not be primed or painted, and all rust and mill scale must be removed before applying the material, which will then prevent further corrosion, as it will in the case of other metals.

One of the disadvantages of any material containing cement is its liability to cracking and crazing, and this peculiarity has been the subject of research especially with regard to external renderings, where it would appear that the technique at present used in this country is not so satisfactory as that adopted abroad. Another disadvantage is that if a bad place be hacked off and the patch made good with similar material, it may be expected that sooner or later a fine crack will develop along the line of junction between old and new work. This disadvantage is absent in the case of Pyrok, as patching showed no sign of cracking, even after several months. This is important, because portions can be cut out and filled in without apprehension of the results. Cutting out can be done perfectly cleanly, as there is not the least tendency for the material to spall away at the edges. This characteristic also shows itself in the case of indentation; a coating of Pyrok was hit with a light sledge hammer as well as with an ordinary one and the surface merely indented to the exact shape of the tool without cracking up the sides or around the edges of the depression. This characteristic would be an advantage if it were desired to decorate a surface with scratch-work. If carving is required, then the material can be applied more thickly in certain parts and so form a boasting.

Another point to be considered, the suitability of the material to hold screws for the attachment of fittings such as electric light brackets and the like; it might at first be thought that the manner in which Pyrok gives under impact from a hammer, as mentioned above, is an indication that the material is too soft in nature to prevent a nail or screw from being pulled downwards by a weight; this, however, is not so; it is not necessary to plug the wall or to use anything in the nature of special fixing devices; nails can be

driven in and screws will form their own thread and can be withdrawn and re-inserted. A block of the material was sawn; the saw passed through very quickly and the cut surfaces were quite clean.

The normal colour of Pyrok, when mixed with ordinary Portland cement, is the usual greyish white, but other tints may be obtained by using any of the white or coloured cements, and, of course, special effects could be got by applying a general background in one tone and building up with another, but there is no need to enlarge on the possibilities in this direction, as it will be obvious that if the material is used as an external rendering there need be no feeling that uniformity or monotony must necessarily result. All the usual paints and distempers, and also wallpaper, can be applied to the surface and adhesion has been found to be good.

We understand that a programme of official tests at the Building Research Station is being drawn up which will establish precisely the properties of this material. Such tests naturally take a long time and have to be correlated with field experience. Their result will be awaited with interest, in view of the empirical tests described in this article which it must be admitted, were somewhat stringent but are evidence of the faith of the patentee in the qualities of the material.

Frances Benjamin Johnston's Photographs

WASHINGTONIANS have been particularly fortunate in having available, during the last two months, an exhibition at the Library of Congress—photographs by Miss Frances Benjamin Johnston, an Honorary Member of The Institute. This particular group, chosen out of the thousands of Miss Johnston's negatives, represented the early architecture of the Southern States, and as such attracted a throng of visitors.

Miss Johnston, as is well known in the architectural profession, has possibly contributed more than any other one perpson to making a photographic record of early American architecture. It has been her life work. The many thousands of negatives which have resulted are now on deposit in the Library of Con-

gress and will eventually become part of its collections.

The fact that scores of fine buildings have been destroyed since she recorded them demonstrates how necessary and valuable her labors have been. Many of her photographic surveys of individual States were carried on under grants from the Carnegie Corporation of New York, including work done from 1933 to 1941 in Maryland, Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi and Louisiana. The present exhibit was principally devoted to the results of these later surveys, and as such it gave an excellent idea of the full range of Miss Johnston's work.

Her early training was in art studios in Paris and at the Art Students' League of Washington, which was later merged with the Corcoran Gallery of Art. She pioneered in photographing various personages and events during the administrations of Harrison, Cleveland, McKinley, Theodore Roosevelt and Taft. These records now form a part of the American collections in the Huntington Library, San Marino, California. Although her photographic activities have extended over half a century, it is her recording of early American architecture during the past twenty years that has given her work unique distinction.

Miss Johnston's career in architectural photography was started by a commission from the late John M. Carrère to photograph the New Theatre in New York City on its completion in 1909. Since that time she has had as clients such eminent architects as Bertram G. Goodhue, Charles A. Platt, Cass Gilbert, John Russell Pope and Grant LaFarge. In the early 'twenties she photographed the fabulous Spanish castles, Italian palaces and French chateaux of the Vanderbilts, Astors, Whitneys and Goulds. A commission in 1926 to photograph Chatham near Fredericksburg started Miss Johnston on the project of recording the early architecture of the Middle and Deep South. This work, undertaken for Mrs. Daniel B. Davore, led to a further assignmnet to survey the early buildings of Fredericksburg and Falmouth, many of which have since been destroyed. Shortly thereafter an exhibition of Miss Johnston's photographs was mounted in the Library of Congress and subsequently, with the support of the Carnegie Corporation of New York, Miss Johnston was enabled to extend her project

HOUSE OF MRS. DIEGO SUAREZ
SYOSSET, LONG ISLAND, N. Y.
DAVID ADLER, ARCHITECT
Photograph by Mattie Edwards Hewitt

DETAIL, BUILDING FOR THE WORCESTER PRESSED STEEL COMPANY
WORCESTER, MASS.

LELAND & LARSEN, ARCHITECTS AND ENGINEERS

into several of the Southern States.

Frances Johnston has photographed thousands of subjects, not only with extraordinary artistic ability, but with an unusual understanding of the fine and valuable in early architecture. Her remarkable industry in covering vast areas in search of early buildings has led to the discovery of many previously unrecorded. This is particularly true in North Carolina, where hardly a dozen historic houses had been listed previously, but where Miss Johnston compiled lists of over 200 early buildings. In other States she found hundreds of fine small buildings which had been hitherto ignored.

Miss Johnston has collaborated with a number of authors of books on Southern architecture in supplying illustrations, including Henry Irving Brocks' "Colonial Churches in Virginia" and "The Plantations of the Carolina Low Country," published by the Carolina Art Association, Charleston, S. C.; "Early Architecture of the Lower Louisiana Delta;" Thomas J. Waterman's "Early Architecture of North Carolina," "The Mansions of Virginia," and "The Early Architecture of Georgia."

The Government's Housing and Home Finance Agency

ORGANIZATION of the Office of the Administrator of the Housing and Home Finance Agency was announced on November 1 by Raymond M. Foley, HHFA Administrator. The new agency was established as a permanent peace-time single Federal housing agency under Reorganization Plan No. 3, and succeeded the wartime organization of the National Housing Agency.

The Office of the Administrator, under the Reorganization Plan, has responsibility for coordination and general supervision of the principal housing functions of the Government carried on by the three constituent agencies of the HHFA —the Home Loan Bank Board, the Federal Housing Administration, and the Public Housing Council, created by the plan. The Council includes representatives of the Veterans Administration, the Reconstruction Finance Corporation, and the Department of Agriculture, in addition to the three

constituent agencies of the HHFA. The Council is designed to serve as a medium for assuring the most effective use of Federal housing functions, for avoiding duplication and overlapping, and for obtaining consistency between the housing programs and over-all Government economic and fiscal policies.

"The Housing and Home Finance Agency is designed to make full use of Government housing functions and activities to aid private industry and local communities to provide decent housing for all income brackets of the American population," Mr. Foley said. "It will seek to bring together all phases and parts of the complex housing industry and of government at all levels to develop effective solutions for the problem areas of housing, including costs, blighted areas and slums, and the housing needs of minority groups."

Sunlight and the Hospital Patient

At a session arranged for hospital architects by the American Hospital Association, and held in St. Louis, September 21, two of the papers read dealt with the subject suggested by the title above, and their authors reached almost diametrically opposite conclusions. The reader will have to be his own umpire—unless he would ride off in still another direction.—Editor.

Fitting Solar Orientation into an Economical Layout Without Involving Operating Extravagance

By Robert W. Cutler

OF SKIDMORE, OWINGS & MERRILL, ARCHITECTS

THERE is no reason to go into a lengthy definition of orientation, solar systems or bedrooms to the south. Here is a short one that covers the subject as we see it: "The design and orientation of the patient's bedroom so as to obtain the maximum 'controlled' use of the sun in order to obtain the maximium therapeutic value to the patient." Specifically this means generally south for bed-ridden patients. The only two basic collateral elements that may influence this are prevailing breeze and outstanding view.

If the principle of orientation is considered primary and mandatory,

then an amazing number of other fundamental questions automatically settle themselves. If orientation is ignored or reluctantly abandoned — either through specious reasoning or for what might superficially appear to be valid objections—then none of the basic elements are settled and anything can happen except the right thing. To me, orientation of a patient's bedroom is the most fundamental element, and must be decided upon first if the hospital is to be properly planned.

And we are not alone in this thinking. Dr. E. M. Bluestone, Director of Montefiore Hospital for Chronic Diseases in New York City, states as follows: "We are particularly concerned with the problem of good orientation in the climate of Metropolitan New York, and the trouble is that too few architects have made allowances for the proportion of sunshine which the sick can obtain from their best professional efforts. In congested city areas, where most hospitals are or should be located, one does not often have the pleasure of looking out on the mountains or the rivers. The direction of the prevailing winds are known and the problem should, therefore, be simpler than many architects are apt to make it."

In spite of this enthusiastic endorsement, or challenge if you wish, we encountered extreme difficulties in making it stick, in getting it accepted by the client, consultant, and even by other architects. We are having some success, but to achieve acceptance we have had to meet towering, forbidding objections. Some of these most persistent objections are cost, glare, esthetics and operative difficulties. These have been overcome one by one through actual facts, figures, costs and medical authorities.

This question of orientation seems to be so important and so obvious that it is difficult to understand how it can be more or less ignored by the profession in its handling of hospital design. It seems to me to be a subject that can be settled once and for all. Is it important to have orientation, or isn't it? We have tried to analyze the pros and cons of the subject to draw up a sort of balance sheet, and to get a scientific answer to the problem.

Architects' offices throughout the country are loaded with hospital projects. What comes off the boards of architects in this country during the next year or two

will set a standard and influence the form of hospitals for the next twenty-five years. How many have incorporated orientation of the bedroom as a basic design principle? Probably not more than ten per cent.

Look at the implications inherent in accepting proper orientation for patients' bedrooms. Since patients' facilities are arranged in blocks of from 20 to 30 beds to a nursing unit; since there may be from two to three nursing units to a floor; since at least 90 per cent of the bedrooms must face the same way (which means that they are all on one side of the corridor); and since these blocks of nursing units are stacked one above the other for economy of construction, we find that a pattern is developing—rigid in plan, section and elevation.

Since we have accepted orientation as a basic design principle, then the best results to which a predetermined site can be used may be ascertained. Further, orientation influences the type of site to be desired. It is reassuring to note that in this day of a more realistic approach to hospital planning, the architect is more often consulted as to a proper site.

As a basic design principle, orientation involves the plan and section of the patients' facilities. The plan must approach a straight line with its main axis running approximately east and west. It can have no irregular excrescences projecting to the south and casting foreboding shadows into patients' rooms. The ancillary services must be on the north. X plans, Z plans and H plans are out.

Believing in orientation, one wants to see it carried out in concrete, steel and glass. Here are some of the ghosts that must be laid:

The number one ghost maintains that it is more expensive to build a hospital with proper orientation. Actually the reverse is true. A simple straightforward plan, with all patients' rooms facing south and the ancillary services on the north side of the corridor, is the least expensive type to build. All "wet" rooms requiring plumbing can be stacked above one another, which makes for lower capital costs and more economical maintenance. Perhaps more important is the elimination of jutting wings, corners and breaks in the wall, which are expensive to build. An oriented plan can be built with simple repetitive detail.

The second ghost raises objec-

tions to the amount of glass used; he talks of heat losses in winter and objectionable strong sun in summer. Digressing a moment, let us analyze "why more glass?" Traditionally the window is an aperture in a solid wall, the glass is limited, and only at the window is there enough light. This is unsatisfactory because it causes a disturbing brightness contrast. Extend the glass from partition to partition, from top of sill to ceiling plaster in patients' bedrooms. Sunlight and the lack of brightness contrast contributes tremendously to the psychological well-being of the bed-ridden patient. Large glass areas, reducible by curtains if desired, afford the patients on the corridor side of the ward a chance at the view and create less objection to the two- or four-bed ward. Architectural know-how and ingenuity can develop a permanent canopy, awning or cantilever projection designed and engineered to bar the hot rays of the high summer sun, yet admit the warm rays of the low winter sun, thereby actually reducing the heat losses.

The third ghost—he's the esthete—maintains that the exterior has a factory-like appearance and is ugly, monotonous, dry and sterile. To these criticisms we have no answer except that we have no particular objections to factories and see no harm in repeating something, if one accomplishes the functional objective. We see no particular objection to hospitals of a similar size with a similar appearance.

The fourth ghost—he is responsible for the formidable title of this paper—maintains that orientation is good for the patients, results in straightforward buildings, but involves operating extravagances. Nurses walk farther, room is wasted on the north side of the corridor, ancillary services are strung out in a line rather than bunched on top of the proverbial dime.

Let's examine our number four ghost's arguments. If the Nurses' Station is placed at the center of gravity of the patients facilities, she will walk no further, perhaps less far, than in other more complicated plans.

Analyze for a moment the modern nursing unit of say 30 beds. By adopting a module of planning of about 10′, it is possible to accommodate the patients in 13 modules along the south wall. Ten feet for a single or double room, twenty feet for a four-bed ward. Thus

we have 13 ten-foot spaces on the north wall. Modern nursing technique requires very nearly all of this north-side space for utility and treatment rooms, toilets, nurses' chart room and station, storage rooms of various sorts, diet kitchen, perhaps an examination room or some special purpose room. If we find that efficient layout does not use all these north side modules of space, and that it seems as though one or two patients' rooms must be placed with this undesirable orientation, let's not weep. There is always need for an admitting room, an isolation room or some other use by a patient who is too ill to appreciate sun and breezes, or two well to want to stay in his room for long.

Now is there any operating disadvantage to having the ancillaries strung out along the north side of the corridor? Not at all. With the Nurses' Station in the center, wet service rooms can be on her one hand, storage and such spaces on her other. The serving pantry will, of course, take the space near the entrance to the nursing unit. Universally, nurses prefer this type of layout to the haphazard arrangement which has some patients' rooms on each side of the corridor, with her service spaces scattered where room could be found.

And most important, we answer the question of "operating extravagance" by saving definitely; operation of a properly oriented hospital is simpler, easier, and therefore less expensive.

Having executed solar orientation into concrete, steel and glass, we find many advantages. The plan is forthright and direct, the larger portion of the patients' rooms are on the south side of the main service corridor, ancillary services on the north, or least desirable location. Mechanical facilities are arranged over each other on successive floors so that ducts and piping take shortest runs, consequently are easily and economically maintained. There is economy of construction made possible through clean, simple, repetitive detail and the development of the ideal section. The structure is cleanly separated from the curtain walls of glass and metal, making for ease of installation.

The physiological architect is primarily concerned with another kind of orientation, that is medical care for every kind of patient who requires a hospital bed. At the

same time he concerns himself with both kinds of orientation, in order that the best results may come from our combined efforts. The patient is, after all, the reason. In more pleasant surroundings he—that is the patient—as a sun worshipper had spent his savings for a few treasured days in California or Florida. Why not bring some of that sun into his hospital room? Why not squeeze the last rays of sunlight out of dark and foggy winter months in order to help the psychological well-being of the bedridden patient?

We as architects interested in the development of hospital planning, can contribute much to a more lasting structural therapy, if I may add one more to the already growing list of therapies. We can impress upon our clients the important factors of light, air and space involved in the selection of a proper site. We can fit orientation into the hospital so as to admit all the available sun for the patient.

And now the other side—

WINDOW DRESSING

By Carl A. Erikson, F.A.I.A.
OF SCHMIDT, GARDEN & ERIKSON, ARCHITECTS

WINDOW DRESSING is a great American art—some would say it was the greatest—but none would deny that it had its origin and greatest development in this country. Its objective is simple: to lure the buyer into the merchant's webb; a lure so potent that it led to the demand for more and more space, taking more and more glass, until the whole of lower stories of our merchandising buildings were big sheets of glass. European architects, searching for a window dressing of their own—some idea that would attract attention to them—looked upon these vast expanses of glass and found that they were good, for their purposes. They liked the attention these goldfish bowls created, and their clients liked the notoriety they attracted, so everybody was happy in the best of worlds. Some of the European architects also seized upon an elementary principle, that sunshine was good for the patient. Nobody bothered to explain to them in what way nor in what quantity sunshine was good for the patient.

But those of us who design hospitals have an unseen and voiceless

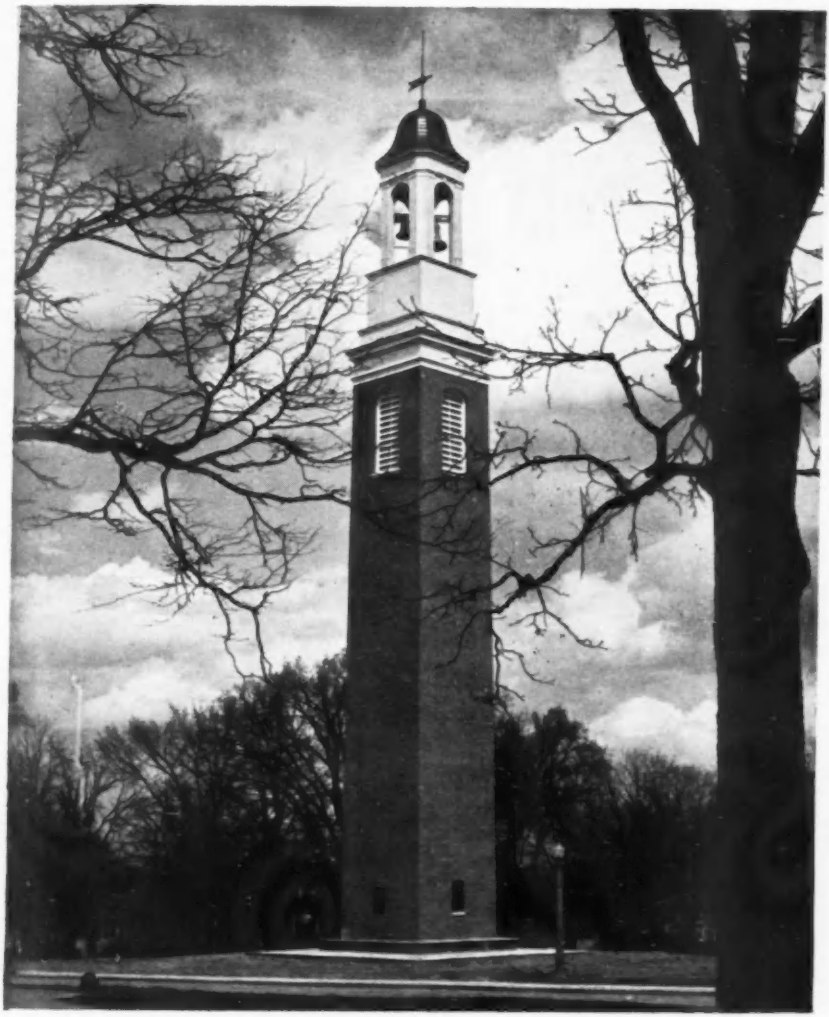
client—the patient. So, in respect to him, we should not let our enthusiasm outrun our common sense.

What do you do when you are a bit miserable? Stretch out in an unshaded sunroom, or find yourself a semi-darkened room in which you can completely relax? Is this an idiosyncrasy of yours, or is it your response to the essential demand necessary for relaxation—avoidance of glare and too much light, and a restful atmosphere?

At the same time, there is a need for sunshine in controlled amounts, primarily for its cheerfulness, for its psychological effect on the patient. But sunlight in "cheerful" quantities requires a contrast—shadows, as all you architects know. Sunlight on the desert isn't cheerful; it's distressing, and slowly becomes painful. That's equally true of sunlight in a patient's room.

Sunlight is a powerful germicide—especially in its ultra-violet band. But no glass has yet been perfected—that comes within anyone's pocketbook—which will pass the ultra-violet band for any length of time. And remember, that even if such a glass were available, the ultra-violet light is quickly absorbed and very little of it reflected. If you will diagram the sunlight possible in a show-window type of patient's room, you will see how little is irradiated. Then, if you subtract from this amount the area of curtaining necessary to shield the patient from glare, you will find there is very little left. And then, if from this you will subtract the ultra-violet light that passes through our winter atmosphere, your germicidal value begins to recede to its true proportions. It probably has little, if any, value.

Proponents of the show-window type of patient's room always draw intriguing diagrams, showing the locations of the sun on December 21 and June 21. From this they demonstrate how the warming sun in the winter enters the room, and the fierce summer sun is dammed out—incidentally, always with expensive overhangs. They neglect, however, to point out that their diagram shows the position of the sun on June 21 for only an infinitesimal moment, and that even on that day it may be entering the south front show-window in considerable, and, to the patient, embarrassing quantities at eleven o'clock or ten o'clock; nor do they point out that the hottest days are those of July and August, when the sun is considerably lower. Measurement of the heat transmission on, say August 21 or some other



BETA THETA PI MEMORIAL BELL TOWER
MIAMI UNIVERSITY, OXFORD, OHIO
CHARLES F. CELLARIUS, ARCHITECT

Do you know this building?

THE GORSUCH BARN
OFF YORK ROAD, BALTIMORE COUNTY, MD.
Photograph by Frances Benjamin Johnston, Hon. A.I.A.

day, is probably unnecessary for any of you who have parked your car in a sunny spot on such a day as that.

In pointing out the value of solar radiation in winter, the proponents of the show window unfortunately neglect to point out how many hours of sunshine there are each winter in most of our northern areas. They neglect, too, to calculate the number of sunless hours and the attendant "cold radiation."

The show-window type of room has little, if any, benefit to the patient, and may be a serious detriment to his welfare, unless methods are adopted to control the effective window area. A window in itself usually costs more than a wall. But if we add to this the suggested overhanging, permanent awnings or their equivalent, the additional radiation necessary, and the greater curtaining required, it is obvious that we are merely window dressing without considering the ultimate user—the patient. His friends and his community, in the long run, pay for all the operating costs of a hospital. If we add more window cleaning, more heating, more curtaining, more gadgets, as is required by this type of window, the patient pays for something he doesn't want and which is positively detrimental to him in many cases.

So, if I may be permitted to speak for the forgotten man (and he is usually forgotten in the hospital seminars), the patient, I would say: Don't let the cabooseries, the current clichés, the vaporings of magazine editors who never had to wear down tuberculosis in a show window, overcome your common sense; don't let your desires for window dressing of your own, the desire to enlist the attention of a prospective client, or your desire to be in the parade, put me—the patient—into either the show window or a goldfish bowl.

Calendar

December 3, 4, 5, 6: Semi-annual meeting of the Board of Directors, A.I.A., Charleston, S. C.

January 12-16, 1948: Second National Materials Handling Exposition in the Public Auditorium, Cleveland, Ohio.

February 2-6, 1948: Eighth International Heating and Ventilatiny Exposition, Grand Central Palace, New York.

March 1948: Cold Cathode Fluorescent Lighting Exhibit postponed from October, 1947, Hotel

Commodore, New York City. Specific dates, early in March, to be announced later.

May 27-30, 1948: Annual Conference of the R.I.B.A., to which A.I.A. members expecting to be in Europe are invited, Liverpool.

June 20-25, 1948: Eightieth Convention of The American Institute of Architects, Salt Lake City, Utah.

September 20-24, 1948: Annual Technical Conference of the Illuminating Engineering Society, Hotel Statler, Boston, Mass.

Richard Upjohn, F.A.I.A.

1802-1878

By Thomas U. Walter, F.A.I.A.

Excerpts from a Memorial of The Institute's first President (1857-1876) as read at the Twelfth Convention in New York City, November 14, 1878.

WE ARE CALLED UPON today to express ourselves in reference to our late president, Mr. Richard Upjohn, who has finished his course on earth, and gone to his reward, in a nobler, higher sphere of being. We are sensible that no words of ours are required to enhance his fame. His works speak for him all over the land, and illustrate by graceful and enduring memorials the taste and genius that placed him in the foremost rank of our profession.

In the words of the *American Architect and Building News,* "It was not by brilliant and exceptional genius that the good fortune of Richard Upjohn was achieved, but by fidelity in the development of natural gifts, and by hard work judiciously bestowed."

It should also be remarked that to his artistic qualifications were added a stern integrity of character, a sound judgment, a generous sympathy with all who needed counsel and encouragement, and an unremitting and conscientious culture of the religious element that had been early implanted in his heart.

"His life was gentle, and the elements
So mixed in him, that Nature might stand up,
And say to all the world, This was a man!"

Mr. Upjohn was born at Shaftesbury, Dorsetshire, England, on the 22d of January, 1802. After having enjoyed, in his early years, fair educational advantages, he was

apprenticed to a builder and cabinetmaker. He early developed a taste for drawing and mathematics, and on obtaining his majority, he became a master in the trade, which he pursued until 1829. Being then in the twenty-eighth year of his age, he came to the United States and settled in New Bedford, Mass., where he followed his business in the day, and devoted his evenings to the instruction of a class in drawing. In 1833 he removed to Boston, and became assistant to the late Captain Paris, who was then the architect of the Boston Court House.

It was not long, however, before he commenced business on his own account. His first design, as an architect, was the fences and entrances to the Boston Common; and one of his earliest works was St. John's Church at Bangor, Maine.

With characteristic tenacity of purpose, he held out against difficulties and oppositions that were continually besetting him, until the year 1839, when he was called to New York to take charge of sundry alterations and enlargements proposed to be made to Trinity Church, but which were finally abandoned, and the site cleared with a view to the erection of a more magnificent structure.

In the preparation of the designs for the new edifice, the power and scope of the genius of Mr. Upjohn were first made apparent, and from that time the success of his professional career was assured.

Trinity Church was completed in the year 1846, and was then the noblest in conception and the purest in details of any ecclesiastical structure in this country, and notwithstanding the advances since made in architectural science and the improvements in professional education, it still holds its pre-eminent position with dignity and grace.

The reputation of Mr. Upjohn being established by his wonderful success in the design and construction of Trinity Church, he took the lead in ecclesiastical acrhitecture, sustaining in his subsequent works the high standard which he had himself set up. We are unfortunately without a complete list of the ecclesiastical buildings he designed and erected, among which are the following:

In the city of New York, the Church of Dr. Potts, on the corner of Tenth Street and University Place; the Church of the Ascension, on Fifth Avenue; that of the Holy Communion, on Sixth Ave-

nue; the Church of the Nativity, on Avenue A near 6th Street; St. Thomas' Church, at the corner of Fifth Avenue and 53d Street [the first church on this site]; Trinity Chapel, on 25th Street, near Fifth Avenue; and Dr. Adams' Presbyterian Church, on Madison Square. In Brooklyn, L. I., are Christ and Grace Churches, and the Church of the Pilgrims; at New London, Conn., the Church of St. James; St. Paul's at Buffalo, N. Y.; St. Paul's at Brookline, Mass.; St. Stephen's and Grace Churches at Providence, R. I.; the Presbyterian Memorial Church at Springfield, Mass.; the Parish Church at Portsmouth, R. I.; Grace Church at Newark, N. J.; St. Thomas' at Taunton, Mass.; St. Mark's at Mauch Chunk, Pa.; the Geneva Memorial Church and St. Peter's Presbyterian Church at Rochester, N. Y.; and Zion Church at Rome, N. Y.

These works of Mr. Upjohn, embodying as they do a true mediaeval spirit, worked a complete revolution in the processes of thought of those who had hitherto accepted as satisfactory the illiterate traditions that everywhere prevailed in reference to Gothic forms and the spirit of Gothic art. It is only those of us who can remember the manner of building called Gothic architecture fifty years ago [i.e., 1828], who can form any adequate idea of the change that "came over the spirit of our dreams," when the purer and more artistic forms of mediaeval art began to be developed in the ecclesiastical structures of Richard Upjohn.

"He dreamt not of a perishable
home,
Who thus could build."

The civic works of Mr. Upjohn are numerous, and show the same balance of mind that characterizes his ecclesiastical structures. He did not, however draw upon the spirit of mediaeval art for anything but his religious buildings. His course, in this particular, seems to indicate that he considered the Gothic form of art a thing consecrated to more serious uses. His domestic work was generally confined to the spirit of Italian Renaissance. His dwellings were sober and dignified, with no playful conceits, no eccentricities or far-fetched oddities to amuse for a while, and then subside in aversion. All his works have grace and dignity, and their proportions and harmonies are ever growing upon all who take an interest in art.

Among his domestic buildings are the Lytchfield and Packer Houses at Brooklyn; the house of Mr. J. H. Burch at Chicago, Ill.; that of Mr. Edmund Dexter at Cincinnati; of Mr. James A. Cowing at Buffalo; of Mr. John S. Stone at Bay Ridge, L. I.; of Mr. W. M. Stebbins at Tarrytown; the Johnston House at Flatbush, L. I.; the Forysth Hous at Kingston, N. Y.; that of Mr. H. B. McKean at Philadelphia; those of Messrs. E. King and others at Newport; that of Mr. William Mason at Taunton, Mass.; the Thayer houses in and near Boston, and those of Messrs. Seth Adams and Marshall Wood at Providence, R. I.; and Amos W. Smith at Portsmouth.

In all these works we have evidence of a master mind controlling conditions and circumstances so as to accomplish the most desirable results. Some of his domestic buildings are severely classical in treatment, and though well handled, are not, like his churches, greatly in advance of his time.

In the design of civic buildings Mr. Ujohn followed his natural predilections for correct and solid architecture, rather than for new and imaginative combinations. He designed and erected Trinity Building, and the Corn Exchange Bank in New York, a savings bank at Kingston, N. Y., a school buidling at Brooklyn, a hotel and a public school at Taunton, Mass., and a railroad station at Norton, Mass.; he also designed a chapel for Bowdoin College, and a library for Brown University.

Mr. Upjohn was opposed throughout his professional life to all architectural competitions which implied volunteer or unpaid labor, and he embraced every opportunity that offered to impress upon the members of the profession the importance of refusing to submit competitive designs, or to engage in any work for a less compensation than that provided for in the regular schedule of The Institute. He assumed his attitude on these questions with deliberation and self-denial. There are but two cases in which he was known to have deviated from his fixed principles in these particulars, by preparing designs with the knowledge that he was not the only architect who had been invited to do so, but these were exceptional.

The tone of his annual addresses, as President of The American Institute of Architects, is every way in accord with his own honorable

and successful practice. The counsel he gives in these admirable documents, especially to the younger members of the profession, has had an influence in raising the social and moral standard of The Institute, and placing it in the advanced position it now occupies in the public estimation.

From its organization in 1857, to the year 1876, when he resigned the office on account of failing health, he was its only president. During all these years he was untiring in his efforts to establish good fellowship throughout the profession, to raise the standard of practice, and to promote the progress of our art.

The high standing he attained in his profession was recognized by his election as Honorary Member of the Royal Institute of British Architects, and also of the Institute of Portuguese Architects. These honorary distinctions indicate the esteem in which he was held by the profession abroad, and fitly supplement the high appreciation of his worth and genius manifested throughout the country of his adoption.

For many years Mr. Upjohn has been living at Garrison's-on-the-Hudson, where he had made for himself a picturesque cottage amid the magnificent scenery of the Hudson Highlands, where, as he grew older and more infirm, he settled down into a quiet country life.

The little Highland church, which he designed, and in which he was accustomed to worship, is a beautiful memorial of his taste, and a realization, on a limited scale, of the religious inspiration which always seemed to guide him in his church architecture.

During the last illness of Mr. Upjohn, which was not of long duration, he manifested a calm and intelligent devotion to the religion he professed, and with an unwavering trust on the "Strong Son of God," as he himself characteristically expressed it, he passed, on the 17th of August 1878, from earth to

"The Eternal City, built
For the perfected spirits of the just."

A Twentieth Century Fund survey reports that one-third of the American people live in areas without public libraries.

Architects Read and Write

Letters from readers—discussion, argumentative, corrective, even vituperative.

On the Editor's Chin

By Antonin Raymond, New York

Your editorial comments, forever sarcastic towards anything creative, are definitely not a reflection of the opinion of many old members of The A.I.A. I protest vehemently against your using the official organ of The Institute to express your personal idiosyncrasies. I am referring for instance to your remark about the Yale University's Exhibit of Eighteenth-century Arts. [Nov. Journal, p. 238]. What utter nonsense and misrepresentation in that last sentence of yours! Modern architecture and its proponents lay more stress on study of the past and study of the principles underlying all great periods of arts and architecture than the teaching of Beaux-Arts and its narrow eclecticism.

Don't you ever read anything?

The Supply of New Architects

By John W. Hargrave, Cincinnati, Ohio

In his report for the National Architectural Accrediting Board to The A.I.A. (July, 1947 Journal), Mr. Roy Jones made an observation which I have questioned ever since its publication, hoping that some older member of The Institute would call for its reconsideration. Quoting from the Journal, Mr. Jones said: "Some schools even now have no defense whatever against a flood of students which, despite their most heroic efforts, is completely beyond their means to cope with, and which there is little indication the profession can absorb.

"All of which raises many and critical questions concerning objectives, means and methods to which the A.C.S.A. and the Education Committee of The A.I.A. will undoubtedly want to give early and serious study."

I have observed the work of the N.A.A.B. and the stimulating effect which its high standards have had upon the faculties and student bodies of our American architectural schools. The cooperating agencies are to be commended for the resulting improvements. But I question Mr. Jones' comment concerning our ability as a profession to absorb new talent in larger numbers than heretofore. I say that if our profession is to attain any important place of leadership in the construction of America tomorrow, the graduates of the ac-

credited schools will not be available in sufficient numbers to meet either the communities' needs or the professional opportunities.

Recently I appeared with other architects of Ohio before a State Senate committee concerning amendments to Ohio's Architect Registration Law. One of the needed improvements was the protection of the public in the design and the supervision of the construction of single-family dwellings. Knowing that our motives might be doubted, we suggested that only those single-family units containing more than 25,000 cubic feet ought to be included under registered supervision, and asked that our law be changed accordingly. But the committee immediately challenged the ability of our profession to fulfill its responsibility in this single field, even though Ohio has in residence 850 of the 14,000 registered architects in the United States. Further investigation indicated that only a small portion of the dollar-volume of all construction has architectural supervision. Because we could not give the legislators the evidence of our ability to fulfill a public need, the public was left without any protection from unscrupulous operators in our State.

I agree with Mr. Jones that the future of our architectural schools holds the answers to many critical questions affecting our profession, and that their problems deserve our consideration. Let us remember, however, that the community's respect for our work varies in direct ratio to the proportion of the total construction which is architect-designed and supervised. Only when the design of *every building* is the architect's problem will our profession assume its rightful place in America! For this, we need all the youthful well-trained talent our schools can give us.

The Owner-Architect Agreement

By William Stanley Parker, F.A.I.A, Boston

I WAS INTERESTED in Mr. Donovan's comments on the A.I.A. Contract Documents [Nov. JOURNAL.] The Institute should feel greatly pleased at this testimony to the adequacy of their standard provisions. This is emphasized by the very slight amendment he suggests for Article 7 in the Owner-Architect Agreement. The following copy of his suggested substitute clause shows *in italics* the portions that are identical with the present Article 7:

> *"The architect will endeavor to guard the owner against defects and deficiencies in the work of contractors, but he does not guarantee the performance of their contracts. The supervision of an architect is to be distin-*

guished from the continuous observation *to be obtained by the employment of* inspectors. The architect shall notify the owner when, in his opinion, any process of the work may appear to require continuous inspection. *When authorized by the owner,* such inspectors as may seem desirable shall be employed by the architect *at salaries satisfactory to the owner and paid by the owner upon presentation of the architect's monthly statements."*

Let us analyze the portions that are new.

In his second sentence he changes "personal superintendence" to "observation" and "a clerk-of-the-works" to "inspectors." The following sentence is new, but it merely states that the architect shall notify the owner when such "observation" by "inspectors" is desirable. The following sentence, "When authorized by the owner," etc., reasonably infers that his authorization will be in accord with and presumably as a result of the architect's advice. The added sentence seems rather unnecessary surplus words.

The only real change is in the use of the word "inspectors" in place of "clerk-of-the-works." Can this slight difference in nomenclature be so difficult to explain to an owner? Apparently it is not difficult for most architects, as this article has remained unchanged for over twenty years without, so far as I can recall, any previous question.

It is certainly a reassuring comment on the validity of the many provisions of the documents that such a minor change is alone suggested by Mr. Donovan.

Ralph Waldo Emerson

By Wallace G. Teare, Cleveland, Ohio

Your quotation from Emerson, in the October Journal, prompts me to send you this one, from the essay on "Self-Reliance," which I think is of great interest:

> "Our houses are built with foreign taste; our shelves are garnished with foreign ornaments; our opinions, our tastes, our faculties, lean, and follow the Past and the Distant. The soul created the arts wherever they have flourished. It was in his own mind that the artist sought his model. It was an application of his own thought to the thing to be done and the conditions to be observed. And why need we copy the Doric or the Gothic model? Beauty, convenience, grandeur of thought and quaint expression are as near to us as to any, and if the American artist will study with hope

and love the precise thing to be done by him, considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all these will find themselves fitted, and taste and sentiment will be satisfied also.

"Insist on yourself; never imitate. . . ."

It would be difficult to write a more modern creed today, would it not?

"Architecture and the Art of Medicine"

By Walter C. Sharp, Dallas, Texas

"'The fault, dear Brutus, is not in our stars, but in ourselves . . . .'".

I HAVE BEEN READING the address delivered to a hospital planning conference by Dean Hudnut of Harvard. What is functionally wrong with this address is the selection of an audience. It should have been delivered at a Faculty Meeting.

So far as Departments of Architecture are concerned, the technical details of architecture belong therein, but Architecture should be made a cultural subject in the Arts Department. A degree in Arts is a prerequisite to entrance in medical school and, with an understanding of architecture from an Arts Course, doctors wouldn't have to be debated with as to whether an architect is necessary for the building of a hospital. Doctors are ignorant of architecture, and the fault lies in ourselves. I called on one of the leading physicians of my fair city several years ago for some medical advice. I think he had never had an architect patient before, because as I left him he said this to me: "You are an arch—arch—itect, aren't you, (pronouncing *ch* as in chemistry) not an arch—itect (pronouncing the *ch* as in cheque)"; a little proud of himself, I seemed to feel. We are prone to think that such ignorance is unpardonable and to let it go at that. We shouldn't. We should do something about it, and the ones to do it are the scholarly men connected with our architectural schools. Many of them are eminently well qualified to teach the philosophy of architecture as a Fine Art to a group of intelligent Arts students. Paul Cret, than whom I think I personally never knew more erudite a man, could have done it well. So far as I know, however, he never did. Other men of like caliber who are still with us should without delay see to it that cultural courses in architecture are established—and teach in them. I think that's the answer.

The Editor's Asides

THE SEAT of the nation's housing expediter seems to be a hot one. After Wilson Wyatt abandoned it last December, Frank R. Creedon tried it, but couldn't stick out the year. He preferred to go out west and build another plant for the development of atomic energy, having apparently got into the habit when he directed the construction of Oak Ridge for Stone & Webster. Tighe E. Woods, Creedon's deputy, has been moved up to the hot seat.

FRED HEATH, one of the most conscientious godfathers of Modular Coordination, came into The Octagon the other day with a brick. It was carefully wrapped and gently carried. Heath had retrieved it from a waste pile at Monticello. "Put your rule on that brick and measure the three dimensions. Yes, sir, the modular size brick of today—to the sixteenth of an inch!"

"But did Thomas Jefferson—?"

"No, that's the sad part of it. Jefferson never used that size. One of his brickmakers must have made this brick for some special purpose, or by mistake, and there it was among the culls. Too bad I couldn't have made it a good story of Jefferson's uncanny foresight. But he certainly would have used Modular Coordination if he had known about it."

I SUPPOSE that if this world really got to be the bright new one that we sometimes think we see approaching, we'd get fat and lazy and die of ennui. However, just as a reminder that the day's news still has the power to make one's hackles rise, here's the gist of a recent item in the *New York Times*:

> U. N. Center work tied up by strike. Jurisdictional dispute between two A. F. of L. unions brings work to standstill. Housewreckers Union and International Association of Bridge, Structural and Ornamental Iron Workers Union both insist that only their respective operators man the cranes, derricks and other power equipment used in the demolition.

IS DAVID S. MILLER, President of the Producers' Council, merely whistling in the dark to keep his courage up, when he says: "Labor's work output has not yet returned to pre-war standards, but there has been a definite improvement in al-

most every trade. This means more building done per dollar paid out in wages. There is good reason to believe that this desirable upward trend will continue."

THE NAVY is becoming color conscious. It is reported to have retained the services of Faber Birren, well known authority on color and its use. Birren is to develop a report and recommendation on standardising color usage for the Navy's shore establishments. Considering that these include ship yards, ordnance plants, supply depots, air stations, hospitals, administrative and personnel buildings, not forgetting quarters for the Marine Corps, it seems that Birren has a job.

IN CONTRAST to the Navy's action, many of the big department stores are having a "consumer color survey" made, to find out what their customers want in the colors of walls, draperies, floor coverings, furniture upholstery—not generally, but specifically in their living-rooms, dining-rooms, bedrooms, baths and kitchens. In the last-named, colors are to be voted upon by the consumer for not only walls and floors, but for kitchen cabinets, stoves, refrigerators, mixers and toasters. As the director of the survey says: "There is no longer any excuse for wrong guessing on consumer color wants in home merchandise."

In contemplating the possible results of accepting the votes of the gobs as to the colors of Navy establishments, we'll string along with the policy of engaging a color expert.

KEEN OBSERVATION on the part of E. W. Bedford, Chairman of Omaha's City Planning Commission:

> "Time and time again I hear comments by city planners to the effect that they had worked and slaved and labored over plans and programs, for development of their respective communities, only to find that these beautiful pictures and fancy books, showing their city of the future, were sent to other cities and admired, but their own city plans died aborning on account of the weakness of organization and cooperation."

Which reminds us of Donald W. Athearn's article in the September JOURNAL, stressing the necessity for the right kind of selling of city planning to the citizens.

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